

### DISCUSSION OF THE CLAIMS

Claims 1-15 are active in the present application. Claims 13-15 are new claims. Support for new Claims 13-15 is found in the original claims. Independent Claim 1 is amended to recite particular R<sup>14</sup> and R<sup>15</sup> groups. Support for the amendment is found on page 8, lines 35-37 and on page 8, line 28. Claims 2, 9, and 11 are amended for matters of form. Claim 3 is amended in accordance with the amendment to Claim 1.

No new matter is added.

### REMARKS

Independent Claim 1 now recites a Markush group that includes a platinum(II)-bipyridyl complex which has  $R^{14}$  and  $R^{15}$  groups that are independently an aryl group, a tert-butyl group, a heteroaryl group or an alkenyl group. In addition, the platinum(II)-bipyridyl complex must be substituted with the groups  $R^{14}$  and  $R^{15}$  because the values “p” and “q” must be at least 1. Likewise, the platinum(II)-bathophen complex of formula (II) of Claim 1 must be substituted with groups  $R^9$  and  $R^{10}$  because each of “n” and “m” must be at least 1.

Applicants submit that the organic light-emitting diode (OLED) of Claim 1 is not disclosed or suggested in the cited art. For example, the Office acknowledges that Rubner (US 6,548,836) does not disclose the complexes of formula (II) or (III) recited in Claim 1. The Office relies on Che (“Solid-State Emission . . .”) as basis from which to assert that it would be obvious to include complexes of the formula (II) and/or (III) in an OLED as a light-emitting complex.

Applicants submit that Che is silent with respect to the complexes of formula (II) and (III) now recited in Claim 1. In particular, Applicants point out that the substituted ligands of the Che complexes are exclusive of the ligands of the complexes of formula (II) and (III) of present Claim 1.

Che discloses complexes of the formula  $Pt(5,5'\text{-Me}_2\text{bpy})(CN)_2$  wherein the ligand (5,5'-Me<sub>2</sub>bpy) is the ligand 5,5'-dimethyl-2,2'-bipyridine (see the Abstract of Che). The complexes of Che are thus bipyridine-based materials that have bipyridine which are substituted with two methyl groups. Nowhere in the Che disclosure is it disclosed or suggested that bipyridine ligands substituted with groups other than methyl groups may be exchanged for the Me<sub>2</sub>bpy ligand of the Pt complexes described in the cited reference. In contrast to Che, present Claim 1 recites a bipyridine ligand that is substituted with groups  $R^{14}$  and  $R^{15}$  that are different from the methyl groups of the Che Pt complex.

Likewise with respect to the complex of formula (II) of the present claims, Che does not disclose any substituted bathophen group corresponding with the bathophen group of present Claim 1.

Applicants thus submit that Che fails to disclose or suggest the OLED of present Claim 1. Applicants thus respectfully request withdrawal of the rejection.

The Office further rejected the claims as obvious over the combination of Rubner with Pawlowski ("Synthesis, Structure, Optical Properties . . ."). Pawlowski has an earliest publication date of September 9, 2009 (as an early view article published online). The present application is a national stage application of international application PCT/EP04/13944 filed on December 8, 2004. Therefore, the effective U.S. filing date of the present application is December 8, 2004. The present application claims priority to German application no. 10358665.2 having a filing date of December 12, 2003.

Applicants will submit a certified English translation of DE 10358665.2 to antedate the earliest publication date of Pawlowski and thereby disqualify Pawlowski as prior art to the presently claimed invention.

Applicants submit that withdrawal of the rejection in view of Pawlowski will thus be appropriate.

#### Claim Objections and 35 U.S.C. § 112

The Office objected to the claims on several grounds including alleged improper dependency. For example, Claim 4 was objected to by the Office for failing to further limit the subject matter of Claim 1. The Office asserts that the recitation in Claim 4 that the complexes of formula (I)-(III) are mononuclear complexes does not further limit the claim subject matter.

Applicants submit that this is not correct. In fact, the complexes recited in Claim 1 may be of multinuclear form in the solid and/or solution state. The chemical formula describing complexes (I)-(III) merely describes the basic chemical formula unit and does not exclude multinuclear complexes, e.g., for example multinuclear complexes that exist transiently in the solution state or as associated structures in the solid state. Thus, Claim 1 encompasses multinuclear complexes. In contrast, Claim 4 recites complexes that must be mononuclear. Claim 4 thus properly further limits the subject matter of Claim 1.

With regard to Claims 5 and 6, the Office asserts that the OLED of Claim 1 must “by definition” include a layer containing an emitter molecule. Applicants submit that Claims 5 and 6 further limit Claim 1 because the location of the emitter molecules of Claim 5 is not specified. In contrast, Claim 5 explicitly identifies a location of the emitter complexes, i.e., located in a light-emitting layer.

Likewise for Claim 6, Claim 1 does not recite a light-emitting layer and thus, Applicants submit, Claim 6 further limits the subject matter of Claim 1.

Claim 8, which depends from Claim 6, is drawn to an OLED that comprises the light-emitting layer according to Claim 6. Should the Office determine that Claim 6 further limits the subject matter of Claim 1, then Claim 8 must thus likewise further limit the subject matter of Claim 6 and the objection should be withdrawn.

Applicants further submit that the amendment to the claims obviates those rejections under 35 U.S.C. § 112 set forth on page 3 of the May 1, 2009 Office Action.

For the reasons discussed above in detail, Applicants request withdrawal of the rejection and the allowance of all now-pending claims.

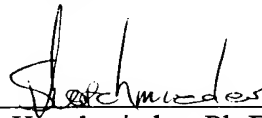
Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413-2220  
(OSMMN 08/07)

  
\_\_\_\_\_  
Stefan U. Koschmieder, Ph.D.  
Registration No. 50,238